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(54) DEVICE AND METHOD FOR CONDUCTING INTERMITTENT OCCLUSION OF CORONARY VENOUS SINUS

(57) Abstract:

PROBLEM TO BE SOLVED: To enable washing of toxic metabolites and edema from ischemic tissue by reverse circulation by evaluating pressure of fluid during occlusive action of a control device and providing a trigger signal for stopping occlusive action based on the obtained evaluated value.

SOLUTION: An intermittent occlusion device 10 for coronary artery sinus has a multi-aperture diameter catheter 12 wherein a distal end 14 is inserted into coronary venous sinus of heart 16 via an atrium dextrum. A proximal end 18 of the catheter 12 has a tube 20 for expansion of a balloon connected with a pump 22. A second tube 24 in the same axis as the tube 20 and a wire 42 are connected with a control device 28. The control device 28 delivers a control signal on a circuit wire 30. The device contains a circuit for triggering start and stop of the pump 22. When the distal end 14 of the catheter 12 is inserted into a coronary venous sinus, a processor 56 produces a trigger signal via an interface 64 to the circuit wire 30 to switch on the pump 22. By forcing gas within the tube 20 and expanding the balloon within coronary venous sinus, blood does not flow out from venous sinus.

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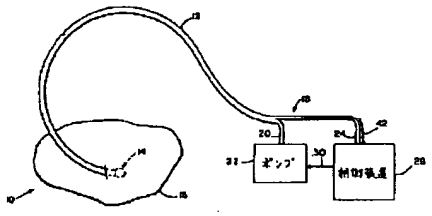

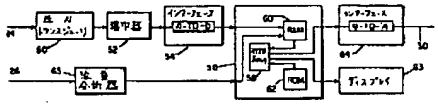

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